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Cyril Deretz

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WOODCOCK WASHBURN LLP  
CIRA CENTRE, 12TH FLOOR  
2929 ARCH STREET  
PHILADELPHIA, PA 19104-2891

EXAMINER

VIZVARY, GERALD C

ART UNIT

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3684

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/772,103	<b>Applicant(s)</b> DERETZ, CYRIL	
	<b>Examiner</b> GERALD C. VIZVARY	<b>Art Unit</b> 3684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 10/23/2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,7,9-12,14,15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,7,9-12,14,15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

1. In the amendment filed 10/23/2009, the following has occurred:

Claims 1 & 17 have been amended.

Claims 8 & 16 have been cancelled.

Now, claims 1-4, 6, 7, 9-12, 14, 15 & 17-20 are presented for examination.

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the claimed invention is directed to non-statutory subject matter.

Claim 1 is rejected as being directed toward non-statutory subject matter. In performing the steps of claim 1, there is no requirement that a machine be used. Therefore, the claimed subject matter may be performed using only human intelligence, which has recently been held to be non-statutory. Furthermore, process claims reciting abstract ideas are patentable only if the process involves one of the other statutory classes of subject matter (i.e. a machine, manufacture, or composition of matter). In re Comiskey, No. 2006-1286, (Fed. Cir. Sep. 20, 2007), 17-21.

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Claim 17 are also rejected as being directed toward non-statutory subject matter because they are software per se. Claim 17 recites “a computer generated product for correlation risk hedging” as well as a several elements that appear to be software modules or computer programs. The current claim language does not specify the software is part of or statically embodied and executable in a physical medium. Software not statically embodied on a physical medium and executable is considered descriptive material per se. As drafted, the claim fails to define any structural and functional interrelationships between the software per se and other elements of the invention that permit the software's function to be realized. (See MPEP § 2106 Section IV B 1 (a)).

***Claim Rejections - 35 USC § 112***

3. Applicant's arguments, see pp. 6-7, filed 10/23/2009, with respect to 35 USC § 112 2<sup>nd</sup> paragraph have been fully considered and are persuasive. The rejection under 35 USC § 112 2<sup>nd</sup> paragraph of claims 1, 8, 9, 16 & 18 has been withdrawn.

***Response to Arguments***

4. In the remarks filed on 10/23/2009, Applicant argues that

**(1)** Olsen US 2002/0123951 A1 teaches the similarity between two successive intermediate dates and not the similarity between two underlying assets.

**(2)** Olsen US 2002/0123951 A1 teaches hedging by offsetting one asset with another asset having complementary or different behavior rather than similar behavior.

**(3)** Lange does not cure the deficiencies of Olsen, but only teaches.

**(4)** Nothing in Olsen US 2002/0123951 A1 mentions a payoff value.

**(5)** Olsen US 2002/0123951 A1 teaches a method for determining a portfolio value rather than a price based on an implied price correlation.

**(6)** Olsen fails to describe any analysis based on market indices, or assets. Olsen's system is limited to an analysis of assets actually held in a portfolio. Applicant's invention does not use such a portfolio. Applicant uses a set of underlying assets that are a foreign-exchange rate, an index level, an equity indices or an interest rate, which intrinsically are not held assets.

**(7)** Applicant's invention, produces a product having a payoff value, which is a function of the similarity of behavior of the performances of two underlying assets that are a foreign-exchange rate, an index level, an equity indices or an interest rate.

In response to **(1) & (2)** Olsen US 2002/0123951 A1 recites "Simulation Model One embodiment of the present invention solves the portfolio re-allocation problem via monte-carlo simulation, which involves the construction of multivariate correlated paths

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into the future for each underlying time series.” (Olsen US 2002/0123951 A1 [0022]), clearly addressing correlated paths.

In response to **(3)** Lange recites “It can also be based upon the values of commodity indices, economic statistics (e.g., consumer price inflation monthly reports), property-casualty losses, weather patterns for a certain geographical region, and any other measurable or observable occurrence or any other event in which traders would not be economically indifferent even in the absence of a trade on the outcome of the event.” (Lange 6,321,212 B1 col. 23, lines 49-55), which would also include “foreign-exchange rate, an index level, an equity indices or an interest rate”

In response to **(4)** Olsen US 2002/0123951 A1 recites “A method for interacting with a computer to determine a portfolio as in claim 78 wherein said asset data comprises one or more members of the group consisting of last observed price, arbitrate premium, minimum investment principal, actual investment current, proposed investment amount, transaction costs, net new investment and new position change.” (Olsen US 2002/0123951 claim 79) Examiner notes that the “last observed price, arbitrate premium, etc. reflect a payoff should the investor sell at a desired point in time.

In response to **(5)** Olsen US 2002/0123951 A1 recites “The Portfolio Allocation System of the present invention is a comprehensive tool which accepts user specified scenarios describing selected aspects of future price evolution” (Olsen US 2002/0123951

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abstract), "Apply stochastic models to construct covariance matrix  $S_t$  for describing the multivariate price evolution (at  $t+1$ ) of the underlying time series  $A$ -inverted.i .epsilon. U" (Olsen US 2002/0123951 [0060]), as well as a plurality of other references to price correlation.

In response to applicant's argument **(6) & (7)** that Olsen US 2002/0123951 A1 is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Olsen US 2002/0123951 A1 teaches analysis generating a portfolio value using analogous art to applicant's art generating payout value.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 7, 9-12, 14, 15 & 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsen US 2002/0123951 A1 in view of Lange 6,321,212.

As per claim 1 (Currently amended) A computer-based method for correlation risk

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hedging comprising: selecting by way of the computer at least two underlying assets; and providing a product having a calculated payoff value wherein the payoff value is a function of the similarity of the behavior of the intermediate performances valuation of the at least two underlying assets, each intermediate ~~performance~~ valuation being related to the time period between two successive intermediate dates ("The present invention determines a portfolio from past values of underlyings and from views about the future values of underlyings." Olsen US 2002/0123951 A1 ¶ [0004]); and ("Dynamic hedging with trading models is an automatic consequence of the system--since the portfolio can have a position in the US Dollar and a trading model against the US Dollar as two separate assets with different weights in the portfolio." Olsen US 2002/0123951 A1 ¶ [0004]),

Olsen US 2002/0123951 A1 fails to explicitly teach that each underlying asset is a foreign-exchange rate, an index level, an equity indices or an interest rate.

Lange 6,321,212 teaches "The distribution will typically be defined for events of economic interest for investment by traders having the expectation of a return or a reduction of risk ("hedging"). For example, the distribution can be based upon the values of stocks, bonds, futures, and foreign exchange rates." Lange 6,321,212 col. 23 lines 44-49)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include using stocks, bonds, futures, and foreign exchange rates. as taught by Lange 6,321,212 in the system of Olsen US 2002/0123951 A1, since the claimed invention is merely a combination of old elements, and in the combination each element merely



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would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable

As per claim 2 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a method according to claim 1.

Olsen US 2002/0123951 A1 fails to explicitly teach that the payoff value is value negotiated for a product traded on an over the counter (OTC) market.

Lange 6,321,212 teaches "Derivatives are traded on exchanges, such as the option and futures contracts traded on the Chicago Board of Trade (CBOT), as well as off-exchange or over-the-counter (OTC) between two or more derivative counterparties." (Lange 6,321,212 col. 2 lines 35-38)"

It would have been obvious to one of ordinary skill in the art at the time of the invention to include trading on an over the counter (OTC) market. as taught by Lange 6,321,212 in the system of Olsen US 2002/0123951 A1, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable

As per claim 3 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a method according to claim 2.

Olsen US 2002/0123951 A1 fails to explicitly teach that said at least one product is quoted on a futures market.

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Lange 6,321,212 teaches "This is how derivatives traders currently are able to hedge options, futures, and other derivatives trades" (Lange 6,321,212 col. 18 lines 14-15)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include quotation on a futures market. as taught by Lange 6,321,212 in the system of Olsen US 2002/0123951 A1, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable

As per claim 4 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a method according to claim 1.

Olsen US 2002/0123951 further discloses that said product comprises an expiry date and wherein the payoff at the expiry date is determined by:

$$p = 100 * \left[ 1 + \frac{\sum_{i=1}^n p_1(i) p_2(i)}{\sqrt{\sum_{i=1}^n [p_1(i)]^2} \cdot \sqrt{\sum_{i=1}^n [p_2(i)]^2}} \right]$$

wherein n+1 is the number of said intermediate dates, the intermediate date 0 being said initiation date,  $p_1(i)$  is the performance between intermediate dates i-1 and i of said first underlying asset and  $p_2(i)$  is the performance between intermediate dates i-1 and i

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of said second underlying asset. ("In addition to a volatility model, the user can associate a model for correlation with each underlying. The available models are the same as the volatility models, i.e. historical, RMA, EMA and GARCH(1, 1). Now, however, these models are not used to define the volatility for the underlyings. Rather, they are combined pairwise to give formulas for the correlations between the underlyings. Olsen US 2002/0123951 A1 ¶ [0231]) and ("Accordingly, the correlation can be defined by

$$Corr = \frac{\sum_{i=1}^N w_{1,i} w_{2,i} Y_{1,t,i} Y_{2,t,i}}{\left( \sum_{i=1}^N w_{1,i} Y_{1,t,i}^2 \right)^{1/2} \left( \sum_{i=1}^N w_{2,i} Y_{2,t,i}^2 \right)^{1/2}}$$

Olsen US 2002/0123951 A1 ¶ [0236])

5 (Canceled)

As per claim 6, Examiner notes that the recitation "intermediate performances are monthly, weekly or daily performances" has not been given patentable weight because the intended use is not functionally related to the method steps. Thus, this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F. 2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F. 3d 1579, 32 USPQ 2d 1031 (Fed. Cir. 1994).

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As per claim 7 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a method according to claim 1.

Olsen US 2002/0123951 further discloses that the product value is determined by a Monte Carlo simulation. ("Simulation Model One embodiment of the present invention solves the portfolio re-allocation problem via Monte-Carlo simulation, which involves the construction of multivariate correlated paths into the future for each underlying time series." Olsen US 2002/0123951 A1 ¶ [0022])

Claim 8 (Canceled)

As per claim 9 (Previously presented) Olsen US 2002/0123951 A1 discloses a system for correlation risk hedging comprising:

a computer processing unit; memory device couple to said computer processing unit; and

computer-readable instructions stored in said memory, ("A programmed computer for determining a portfolio, comprising at least one memory having at least one region storing computer executable program code and at least one processor for executing the program code stored in said memory" Olsen US 2002/0123951 A1 claim 36))

said computer-readable instructions capable of carrying out the functions of:

selecting at least two underlying assets, at least one underlying asset having an associated risk to be hedged ("The present invention determines a portfolio from past values of underlyings and from views about the future values of underlyings." Olsen US

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2002/0123951 A1 ¶ [0004]); and (“Dynamic hedging with trading models is an automatic consequence of the system--since the portfolio can have a position in the US Dollar and a trading model against the US Dollar as two separate assets with different weights in the portfolio.” Olsen US 2002/0123951 A1 ¶ [0004]);

defining a financial product that may be traded independent of the at least two underlying assets (“Each asset represents a single item that may be traded independently from other assets within the scope of institutional constraints.” Olsen US 2002/0123951 A1 ¶ [0011]); and

determining a payoff value for the financial product wherein the payoff value is a function of the similarity of the behavior of the intermediate performances of the at least two underlying assets, each intermediate performance being related to the time period between two successive intermediate dates, (“A programmed computer for determining a portfolio, comprising at least one memory having at least one region storing computer executable program code and at least one processor for executing the program code stored in said memory, wherein the program code includes: (a) code to input past portions of one or more time series of one or more underlyings; (b) code to input one or more views about the future of said one or more time series; and (c) code to determine one or more future paths of said one or more time series from said past portions and said views.” Olsen US 2002/0123951 A1 Claim 36)

Olsen US 2002/0123951 A1 fails to explicitly teach that each underlying asset is a foreign-exchange rate, an index level, an equity indices or an interest rate.

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Lange 6,321,212 teaches "The distribution will typically be defined for events of economic interest for investment by traders having the expectation of a return or a reduction of risk ("hedging"). For example, the distribution can be based upon the values of stocks, bonds, futures, and foreign exchange rates." Lange 6,321,212 col. 23 lines 44-49)"

It would have been obvious to one of ordinary skill in the art at the time of the invention to include using stocks, bonds, futures, and foreign exchange rates. as taught by Lange 6,321,212 in the system of Olsen US 2002/0123951 A1, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable

As per claim 10 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a system according to claim 9.

Olsen US 2002/0123951 A1 fails to explicitly teach that the payoff value is value negotiated for a product traded on an over the counter (OTC) market.

Lange 6,321,212 teaches "Derivatives are traded on exchanges, such as the option and futures contracts traded on the Chicago Board of Trade (CBOT), as well as off-exchange or over-the-counter (OTC) between two or more derivative counterparties." (Lange 6,321,212 col. 2 lines 35-38)"

It would have been obvious to one of ordinary skill in the art at the time of the invention to include negotiation for a product traded on an over the counter (OTC) market as

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taught by Lange 6,321,212 in the system of Olsen US 2002/0123951 A1, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable

As per claim 11 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a system according to claim 10.

Olsen US 2002/0123951 fails to explicitly teach that said at least one product is quoted on a futures market.

Lange 6,321,212 teaches "This is how derivatives traders currently are able to hedge options, futures, and other derivatives trades" (Lange 6,321,212 col. 18 lines 14-15)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a product quoted on a futures market. as taught by Lange 6,321,212 in the system of Olsen US 2002/0123951 A1, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable

As per claim 12 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a system according to claim 9.

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Olsen US 2002/0123951 further discloses that computer-readable instructions stored in the memory wherein said product comprises an expiry date and wherein the payoff at the expiry date is determined by:

$$p = 100 * \left[ 1 + \frac{\sum_{i=1}^n p_1(i) p_2(i)}{\sqrt{\sum_{i=1}^n [p_1(i)]^2} \cdot \sqrt{\sum_{i=1}^n [p_2(i)]^2}} \right]$$

wherein n+1 is the number of said intermediate dates, the intermediate date 0 being said initiation date,  $p_1(i)$  is the performance between intermediate dates i-1 and i of said first underlying asset and  $p_2(i)$  is the performance between intermediate dates i-1 and i of said second underlying asset.

("In addition to a volatility model, the user can associate a model for correlation with each underlying. The available models are the same as the volatility models, i.e. historical, RMA, EMA and GARCH(1, 1). Now, however, these models are not used to define the volatility for the underlyings. Rather, they are combined pairwise to give formulas for the correlations between the underlyings. Olsen US 2002/0123951 A1 ¶ [0231]) and ("Accordingly, the correlation can be defined by



$$Corr = \frac{\sum_{i=1}^N w_{1,i} w_{2,i} Y_{1,i} Y_{2,i}}{\left( \sum_{i=1}^N |w_{1,i} Y_{1,i}|^2 \right)^{1/2} \left( \sum_{i=1}^N |w_{2,i} Y_{2,i}|^2 \right)^{1/2}}$$

Olsen US 2002/0123951 A1 ¶ [0236])

Claim 13 (Canceled)

As per claim 14, Examiner notes that the recitation “intermediate performances are monthly, weekly or daily performances” has not been given patentable weight because the intended use is not functionally related to the method steps. Thus, this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F. 2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F. 3d 1579, 32 USPQ 2d 1031 (Fed. Cir. 1994).

As per claim 15 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a system according to claim 9.

Olsen US 2002/0123951 further discloses that the product value is determined by a Monte Carlo simulation. (“Simulation Model One embodiment of the present invention solves the portfolio re-allocation problem via Monte-Carlo simulation, which involves the construction of multivariate correlated paths into the future for each underlying time series.” Olsen US 2002/0123951 A1 ¶ [0022])

16 (Canceled)

As per claim 17 (Currently amended) Olsen US 2002/0123951 A1 discloses a computer generated product for correlation risk hedging comprising:

a price wherein the price is a function of an implied price correlation over a set term of at least two assets said price determined on a computing device wherein the computing devices determines the implied price correlation of said at least two assets ("A method for interacting with a computer to determine a portfolio as in claim 64 wherein said one or more simulation results comprise one or more correlations among one or more pairs of said assets." Olsen US 2002/0123951 A1 Claim 68); and

an expiry date wherein the expiry date has a term that is the same term as the set term of the implied price correlation ("If a maturity is associated with the time series, this maturity must always be relative to the present time point and not an absolute point in time." Olsen US 2002/0123951 A1, ¶ [0019]) and (The typical example is interest rates where users will see spot rates  $R(t, s_j)$  for times to maturity  $0 < s_1 < \dots < s_k$  but the simulation will be on the forwards  $R(t, s_{j-1}, s_j)$  for the periods  $[t+s_{j-1}, t+s_j]$ , where we have put  $s_0=0$ . Olsen US 2002/0123951 A1, ¶ [0172]).

Olsen US 2002/0123951 A1 fails to explicitly teach that each asset is a foreign-exchange rate, an index level, an equity indices or an interest rate.

Lange 6,321,212 teaches ("The distribution will typically be defined for events of economic interest for investment by traders having the expectation of a return or a

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reduction of risk ("hedging"). For example, the distribution can be based upon the values of stocks, bonds, futures, and foreign exchange rates."(Lange 6,321,212 col. 23 lines 44-49)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include values of stocks, bonds, futures, and foreign exchange rates as taught by Lange 6,321,212 in the system of Olsen US 2002/0123951 A1, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable

As per claim 18 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a product according to claim 17.

Olsen US 2002/0123951 further discloses that the price is a function of an implied volatility of the at least two assets. ("A method for interacting with a computer to determine a portfolio as in claim 64 wherein said one or more simulation results comprise one or more correlations among one or more pairs of said assets." Olsen US 2002/0123951 A1 Claim 68)

As per claim 19 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a product according to claim 17.

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Olsen US 2002/0123951 fails to explicitly teach that the product is negotiated on an exchange.

Lange 6,321,212 teaches "Derivatives are traded on exchanges, such as the option and futures contracts traded on the Chicago Board of Trade (CBOT), as well as off-exchange or over-the-counter (OTC) between two or more derivative counterparties." (Lange 6,321,212 col. 2 lines 35-38)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include negotiation on an exchange as taught by Lange 6,321,212 in the system of Olsen US 2002/0123951 A1, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable

As per claim 20 (Original) Olsen US 2002/0123951 A1 in view of Lange 6,321,212 teaches a product according to claim 17.

Olsen US 2002/0123951 further discloses that the price is determined according to a Monte Carlo simulation. ("Simulation Model One embodiment of the present invention solves the portfolio re-allocation problem via Monte-Carlo simulation, which involves the construction of multivariate correlated paths into the future for each underlying time series." Olsen US 2002/0123951 A1 ¶ [0022])

### ***Conclusion***

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6. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald C. Vizvary whose telephone number is 571-270-3268. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Abdi Kambiz can be reached on 571-272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-270-4268.

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Gerald Vizvary  
Patent Examiner, A.U. 3684  
March 8, 2010

/Nga B. Nguyen/

Primary Examiner, Art Unit 3684